

THURSDAY, OCTOBER 24, 1918.

WASTE AND WEALTH.

Wealth from Waste: Elimination of Waste. A World Problem. By Prof. H. J. Spooner. With a Foreword by the Rt. Hon. Lord Leverhulme. Pp. xvi+316. (London: G. Routledge and Sons, Ltd., 1918.) Price 7s. 6d. net.

IN spite of its limitations, and notwithstanding certain faults of style and taste, this book is calculated to serve a useful purpose, and it makes its appearance at an opportune time. Thrift is not a national characteristic of the southern half of Great Britain, whatever it may be of the other half.

The author quotes a remark of Archdeacon Potter made at an economy meeting at Mitford in the early part of 1916 as evidence of a fact which, unfortunately, cannot be controverted: "I have travelled all over the world, and I have never known any nation or people so wilfully wasteful as the people of our own country. In no other country do people so absolutely fling away God's goods as they do in England." In proof of this statement Prof. Spooner, in the course of some 300 pages, piles Ossa on Pelion. His book is an attempt to show that in practically every department of our national life and activity "wicked waste is occurring everywhere, far and wide: waste of money, waste of food, waste of materials, labour, fuel, energy, and time, waste of human strength and thought, waste of health, and waste of life itself." This is a sweeping generalisation, which, by its over-emphasis, is calculated to prejudice the main conclusion the author seeks to establish, which is that this waste is avoidable, and ought, therefore, to be prevented. If the argument were stated more temperately it would carry greater conviction. Some waste, as the whole scheme of Nature testifies, *pace* Lord Leverhulme, is inevitable. The author implicitly admits this when he allows that there are justifiable wastes and dangerous economies. What he terms "absolute waste," due to corrosion and wear, is, in many cases, unavoidable. Exaggeration never strengthens a case in the eyes of a well-informed reader, and it is the well-informed reader that counts in the long run. Still, when every allowance is made for the author's somewhat too zealous efforts to prove his main contention, enough remains to show that much may be done in the direction of greater economy and in the reduction of waste—a conclusion which nobody will gainsay.

In a series of chapters the author seeks to enforce the lessons of the war. He makes an urgent appeal for better municipal organisation; he shows how time is wasted in factories and in commercial matters; how the public time is wasted in Parliament and in judicial procedure; he directs attention to the waste due to traditional and conservative methods in works management, and to the mischievous policy of restricting output; he

shows how much waste is due to human fatigue; what wastage there is of life, limb, and health, and what is its economic effect; the waste due to infant mortality, child-labour exploitation, and preventable accidents; the waste of food arising from bad household management and lack of knowledge; waste due to adulteration; the waste of coal owing to our partial and imperfect attempts to treat the coal question scientifically; how indefensible is the sliding-scale contract system, and what is its effect on "public prices." He treats of fuel economies in the house, the smoke nuisance, electrical supply, and the creation of central power stations. He deals with what he styles the coming agricultural revolution, the home-grown food question, the technical education of the farmer, labour-saving machinery for the increase of tillage, demobilisation and farm work, the utilisation of waste land, intensive culture, reclamation schemes, waste due to the neglect of afforestation, the timber problem, etc.

In a special section of the work Prof. Spooner shows what has been done in the past to utilise waste substances, and how the waste of perishable things has been prevented. This portion, which he entitles "The Romance of Waste," is put together *pour encourager les autres*, and to prove that there is the potentiality of wealth in waste, as illustrated by the time-honoured examples of alpaca, shoddy, mungo, imitation sealskin, poplin, paraffin oil, linoleum, glycerin, etc. Another section is devoted to household wastes and economies, whilst a third deals with trade and industrial wastes, daylight saving, the waste due to derelict waterways, etc.

It will be seen, therefore, that the book covers a very large amount of ground. The author is certainly to be congratulated on the industry he has employed in its compilation and for the amount of information he has succeeded in compressing into a limited space. The work is simply and unaffectedly written, and appeals rather to the man in the street than to the expert. The author's knowledge of scientific facts is occasionally at fault, and his narratives of certain historical matters are now and again open to correction. "E. C. Stafford" (p. 267) should read "E. C. C. Stanford," and "carbon disulphite" (p. 87) should be changed to "carbon disulphide." The statement concerning dust in the vicinity of a Bunsen flame (p. 61) would seem to imply that the dust is a product of the flame, and the account of reclaimed rubber reads as if the process were something in the nature of adulteration, which is surely contrary to the lesson which it is the whole object of the book to enforce. Such a statement as "leather is frequently adulterated with glucose, soluble salts, and barytes, whilst treated tripe and compressed paper are known to be used as *poor and fraudulent substitutes for leather*" (p. 116), is calculated to convey an entirely false impression, and it is a gross exaggeration to say that "a great part of the wines of France and Germany has ceased to be the juice of the grape" (p. 112).

Lord Leverhulme, with a sense of humour, which is in strong contrast with the author's *ex parte* emphasis, makes the point that his foreword is "an apt illustration of that kind of 'waste' which is the saddest type of all wastes—a wasted opportunity." Here we join issue with his lordship. So far from neglecting it, he seizes the opportunity to state that in his opinion "the greatest wasters are those who concentrate their whole time on mere efforts for immediate and direct money-making." Such a preachment from so great a captain of industry serves to point a moral for which we share Prof. Spooner's gratitude.

MENTAL DISORDERS AND THEIR TREATMENT.

(1) *The Modern Treatment of Mental and Nervous Disorders*. A Lecture delivered at the University of Manchester, on March 25, 1918, by Dr. B. Hart. Pp. 28. (Manchester: At the University Press; London: Longmans, Green, and Co., 1918.) Price 1s. net.

(2) *The Re-education of the Adult: I. The Neurasthenic in War and Peace*. By Capt. A. J. Brock. (London: Headley Bros.) 6d.

(1) **I**N this lecture Dr. Hart discusses modern conceptions of the nature and treatment of mental and nervous disorders. He points out that, though the "physiological conception"—the belief that mental and nervous disorders are due to deranged bodily processes, and in particular to diseases of the brain—still holds its place, its sway is no longer undisputed, for there has now arisen the "psychological conception," which holds that some at least of these phenomena are due to mental causes, capable of determination by psychological investigation, and of removal by psychological methods of treatment. The conspicuous success of this latter treatment has been amply demonstrated in our military hospitals for "shell shock" and similar disorders. Dr. Hart insists upon the present imperative necessity of provision for civilian patients, both men and women, in those incipient phases of mental and nervous disorder when treatment promises the best results, and urges the desirability of institutions in which physiologist, chemist, and psychologist can attack, together and from every side, the many problems that await solution. In emphasising the necessity for the close association of treatment with organised investigation and with teaching, he points out that these three functions have their natural home in the universities and medical schools, and it is from them that we shall confidently expect the developments that are so urgently needed.

(2) This essay forms part of No. 4 of the second series of "Papers for the Present." Describing the "shell shock" hospital as "a microcosm of the modern world, showing the salient features of our society (and especially its weaknesses) in-

tensified, and on a narrower stage," the author describes some of the re-educative methods which, having proved successful, may be commended to the attention of the educationist and those devoting themselves to the general problems of social reconstruction. Underlying all the symptoms of neurasthenia is found the element of separatism or dissociation—a significant fact for social psychology. Some of the current psychological methods of dealing with neurasthenia are placed by the writer into three groups, which, he says, are steps in a progressive series: (1) Psychoanalysis; (2) therapeutic conversations; (3) "ergotherapy." In methods belonging to the first group the mental condition is analysed, in the second the patient is "encouraged to look sensibly and squarely at things," while in the last he is "prompted to follow up his thoughts by action—by real functioning in relation to his environment."

INORGANIC CHEMISTRY FOR STUDENTS.

(1) *Introduction to Inorganic Chemistry*. By Prof. A. Smith. Third edition. Pp. xiv+925. (London: G. Bell and Sons, Ltd., 1918.) Price 8s. 6d. net.

(2) *Experimental Inorganic Chemistry*. By Prof. A. Smith. Sixth edition. Pp. vii+171. (London: G. Bell and Sons, Ltd., 1918.) Price 3s. 6d. net.

(3) *A Laboratory Outline of College Chemistry*. By Prof. A. Smith. Pp. v+206. (London: G. Bell and Sons, Ltd., 1918.) Price 3s. net.

(1) **A**MONG the text-books of inorganic chemistry of the newer type, in which the attempt is made to present the descriptive material so far as possible in connection with underlying theoretical principles, Prof. Alexander Smith's "Introduction to Inorganic Chemistry" is one the merits of which have gained wide recognition, and that a third edition of this work has become necessary will occasion no surprise.

A comparison of the present with the previous edition shows that some alterations have been made in the arrangement of the subject-matter and that a considerable amount of additional information has been inserted, corresponding with the advances of the past decade where these have come within the scope of an introductory text-book. Thus the account of the radio-active elements has been greatly extended, and there are new sections on colloidal solutions, the atomic numbers, and other subjects of a theoretical character. A number of paragraphs have also been inserted on some of the more recent technical applications of chemistry, such as the manufacture of nitric acid from the atmosphere, synthetical ammonia, the oxyacetylene flame, the application of tungsten, the use of permute for water-softening, and so forth. By these additions the usefulness of the book is fully maintained, and it continues to give a scientific